

electronic display device according to a preferred embodiment of the present invention;

[0036] **FIG. 15-B** shows a typical virtual keyboard layout, including a “done” key that a user can click when they want the device to stop displaying the virtual keyboard;

[0037] **FIG. 16-A** illustrates a front view of a portable electronic display device according to another preferred embodiment of the present invention that is similar to the preferred embodiment discussed for **FIG. 13-A** above but that also includes two additional touch sensitive areas on the top edge of the device;

[0038] **FIGS. 16-B, 16-C, and 16-D** illustrate the bottom view, top view, and right side view, respectively, of the portable electronic display device preferred embodiment shown in front-view in **FIG. 16-A**;

[0039] **FIGS. 17-A, 17-B, and 17-C** illustrate the front view, bottom view, and right side view, respectively, of a portable electronic display device according to another embodiment of the present invention, with mechanical controls along the right and bottom edges used for vertical and horizontal scrolling, respectively;

[0040] **FIGS. 18-A, 18-B, 18-C, and 18-D** illustrate the front view, back view, top view, and right side view, respectively, of a portable electronic display device according to another embodiment of the present invention. This embodiment includes a touch pad on the back of the device that is used to scroll or pan displayed content in two dimensions by moving a finger around the touch pad;

[0041] **FIGS. 19-A, 19-B, 19-C, and 19-D** illustrate the front view, back view, top view, and right side view, respectively, of a portable electronic display device according to another embodiment of the present invention. This embodiment includes a touch pad on the back of the device (as in the embodiment illustrated in **FIG. 18**) as well as multiple touch sensitive areas along some or all of the edges, and a modifier spot on the bottom edge;

[0042] **FIG. 20-A** illustrates the right side view of a portable electronic display device according to another embodiment of the present invention. This embodiment includes a screen cover that can flip open, and a touch pad (item 1810) positioned on the inside of the screen cover when the screen cover is closed.

[0043] **FIG. 20-B** illustrates the same embodiment with the screen cover opened slightly, and

[0044] **FIG. 20-C** illustrates the embodiment with the screen cover completely open and flipped around to the back of the device with the touch pad exposed out the back and the display 101 exposed out the front. In that “open” configuration, a user can use the touch pad, for example, to scroll or pan content being displayed.

[0045] **FIG. 21** illustrates a perspective view from the upper right, a top view, and perspective view from slightly below one preferred embodiment of the present invention.

[0046] **FIG. 22-A** illustrates a user scrolling content horizontally by sliding their thumb along the bottom edge of a portable electronic display device, according to a preferred embodiment of the present invention.

[0047] **FIG. 22-B** illustrates a user scrolling content vertically by sliding their finger up or down a side edge of a portable electronic display device, according to a preferred embodiment of the present invention.

[0048] **FIG. 23** illustrates a user causing a portable electronic display device to perform some function by tapping a finger on the device’s edge, according to a preferred embodiment of the present invention.

[0049] Unless otherwise indicated illustrations in the figures are not necessarily drawn to scale.

#### SUMMARY OF THE INVENTION

[0050] To achieve the forgoing and other objects and in accordance with the purpose of the invention, a variety of techniques related to an optimal method and device for portably displaying information are described.

[0051] Means are provided to achieve a portable electronic display device for displaying information, which include means for displaying information content, touch sensor means for detecting a first pattern of touch, and means for detecting patterns of touch to either control functions the portable electronic display device or to change the content displayed in the display means.

[0052] One aspect of the present invention provides for portable electronic display devices for displaying information in a display, which display device are configured according to certain principles that tend to make more pleasurable the viewing of content in the display. One embodiment of such a display device includes an outer casing that is effectively sized to be at most 5.75 inches in a first dimension and at most 4.5 inches in a second dimension, and a visible display in the enclosure, which is sized to have an effective pixel count of at least 520 effective pixels in the first dimension and an effective pixel count of at least 320 effective pixels in the second dimension, the display also has an effective pixel density of at most 175 effective pixels-per-inch (ppi) in the first and second dimensions. A multiplicity of sub ranges within the above the ranges are also efficaciously employed.

[0053] Yet other embodiments, are configured such that the effective pixel count in the first dimension is inclusively between 520 and 720 effective pixels, and the effective pixel count in the second dimension is inclusively between 360 and 440 effective pixels, and the effective pixel density is inclusively between 130 and 162 effective ppi, and the enclosure is effectively sized to be at most 5.0 inches in the first dimension and at most 3.5 inches in the second dimension. The enclosure is also sized substantially in the plane of the display, such that there is no more than 0.45 inches between an outer edge of the enclosure and an outer edge of the active surface. Likewise, a multiplicity of sub ranges within the above the ranges are also efficaciously employed.

[0054] In many applications, a preferred embodiment of the present invention the display device is designed within a plus or minus 15 percent range centered about the following center values of, for the enclosure, 4.6 inches in the first dimension, 3.1 inches in the second dimension, and, for the display, 600 effective pixels in the first dimension, 400 effective pixels in the second dimension, and the center value of 144 effective ppi for the effective pixel density.